WHAT IS CLAIMED IS:

1. A semiconductor device comprising a plurality of types of transistors having different gate insulator film in their thickness value, said plurality of types of transistors having different thickness values of gate electrode in correspondence to the thickness values of the gate insulator film thereof.

2. The semiconductor device according to claim 1, wherein said plurality of types of transistors consists of a plurality of types of MOSFETs formed on a substrate.

3. The semiconductor according to claim 2, wherein:

said MOSFET including a core-purpose MOSFET and an I/O-purpose MOSFET; and

said core-purpose MOSFET has smaller thickness of the gate insulator film than that of said I/O-purpose MOSFET and the also has a smaller thickness of the gate electrode than that of said I/O-purpose MOSFET.

4. A method for manufacturing a semiconductor device integrating therein a plurality of types of transistors having different gate insulator film in their thickness value in which gate electrodes thereof are different in thickness from each other corresponding to the thickness of the gate insulator films thereof, comprising a step of, when depositing respective gate electrode materials of said plurality of types of transistors,

providing said gate electrode materials in different amounts of depositing material corresponding to the thickness of the respective gate insulator films.

5. The semiconductor device manufacturing method according to claim 4, wherein said depositing amounts are set by changing the number of depositing said gate electrode materials.

6. The semiconductor device manufacturing method according to claim 4, wherein said gate electrode material depositing amounts are first set on the basis of said thicker gate insulator film and then increased or decreased by selectively removing said gate electrode materials.